117/81.82,83,200,204

Print Fig. 2a

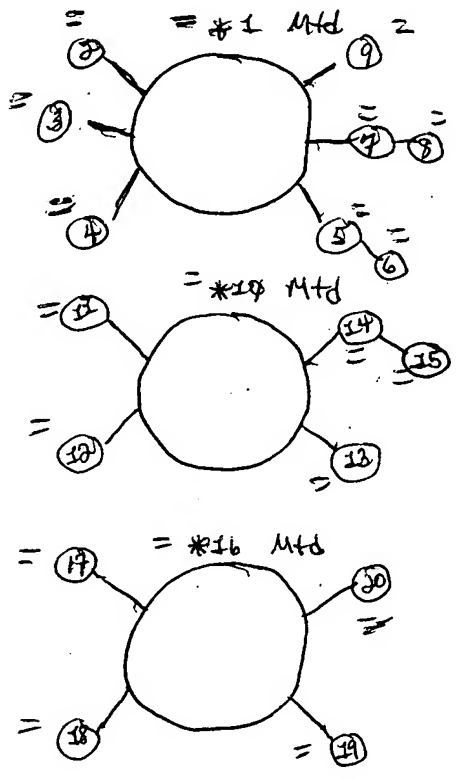
10/611,506

Examiner's Notes

1 s(optical(w) fluoride)(8a)(crystal#)
2)s(Bridgman(w) Stockbarger)
3 s(Fo fluoride)(4a)(raw(w) material(6a) powder) or material(6a) powder)
4 s(mold or flexible(4a) mold)
5 s(pressure or isostatic(w) pressure#)
6 s(compress? or compact? or solidify?)
7 s(CaF2 or calcium(w) fluoride or BaF2 or barium(w) fluoride or MgF2 or magnesium(w) fluoride or SrF2 or strontium(w) fluoride or LiF or lithium(w) fluoride or NaF or Sodium(w) Fluoride)
8 s(metal?(4a) fluoride)

N_3AlF_6 and $(M_1)_x(M_2)_{1-x}F_2$ M_1 a M_2 = Ca, Br, Mg, Sr, Li, Na
M = Li, Na, K, Rb & Cs

6,802,901
6,377,332
6,132,508
5,997,640
5,993,545
10/263,048 Matt Song
6,238,479



Hupton, et al. teaches a process for producing a sintered rhenium crucible highly suitable for growing single crystals from refractory metal oxides. The crucible compact is formed from fine rhenium powder by isostatic cold-pressing at a pressure of 300 to 700 MPa and then sintered at 2000 to 2800°C in vacuum. (column 3, lines 9-33)

Search History

STN
(HCAPLUS, USPATALL, JAPIO, INSPEC)
12/29/04

=> d l16 1-4 abs,bib

L16 ANSWER 1 OF 4 USPATFULL on STN
AB The present invention relates to the manufacturing of high purity optical flouride crystals, the making of purified optical flouride crystal feedstocks and to the anionic purification of optical fluoride crystalline materials. The invention relates generally to methods for removing oxide impurities from optical fluoride crystal feedstocks. More specifically, the invention relates to a method for preparing purified optical fluoride crystal feedstocks and the use of the feedstock in manufacturing VUV<200 nm transmission optical fluoride crystals for VUV lithography/laser systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2003:131231 USPATFULL
TI Method of making high purity optical fluoride crystals
IN Kerdoncuff, Alain, Vincennes, FRANCE
Mayolet, Alexandre M., Auneau, FRANCE
PI US 2003089304 A1 20030515
* US 6802901 B2 20041012
AI US 2002-198526 A1 20020718 (10)
PRAI FR 2001-9710 20010720
DT Utility
FS APPLICATION
LREP CORNING INCORPORATED, SP-TI-3-1, CORNING, NY, 14831
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 9 Drawing Page(s)
LN.CNT 522
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 2 OF 4 USPATFULL on STN
AB A method for making a below 200-nm wavelength optical fluoride crystal feedstock includes loading a fluoride raw material into a chamber, exposing the fluoride raw material to a flow of gaseous fluoride at a predetermined temperature, and storing the exposed fluoride raw material in a dry atmosphere.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2003:103713 USPATFULL
TI Preparation of feedstock of alkaline earth and alkali metal fluorides
IN LeBlond, Nicolas, Conring, NH, UNITED STATES
Mayolet, Alexandre M., Auneau, FRANCE
Pell, Michael A., UNITED STATES
Whalen, Joseph M., Corning, NY, UNITED STATES
PI US 2003070606 A1 20030417
AI US 2002-263048 A1 20021001 (10)
PRAI US 2001-327654P 20011005 (60)
DT Utility
FS APPLICATION
LREP CORNING INCORPORATED, SP-TI-3-1, CORNING, NY, 14831
CLMN Number of Claims: 59
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 673
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 3 OF 4 USPATFULL on STN
AB An optical member for photolithography made of a calcium fluoride crystal exhibits an internal transmittance of 99.5%/cm or greater with respect to light having a specific wavelength of 185 nm or shorter.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2002:89223 USPATFULL
TI Optical member for photolithography and photolithography apparatus
IN Sakuma, Shigeru, Chigasaki, JAPAN
Shiozawa, Masaki, Sagamihara, JAPAN
PA Nikon Corporation, Tokyo, JAPAN (non-U.S. corporation)
* PI US 6377332 B1 20020423
AI US 2000-494039 20000131 (9)
PRAI JP 1999-26746 19990203
JP 1999-37481 19990216
DT Utility
FS GRANTED
EXNAM Primary Examiner: Mathews, Alan A.; Assistant Examiner: Nguyen, Hung Henry
LREP Oliff & Berridge PLC
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 860
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 4 OF 4 USPAT2 on STN
AB The present invention relates to the manufacturing of high purity optical flouride crystals, the making of purified optical flouride crystal feedstocks and to the anionic purification of optical fluoride crystalline materials. The invention relates generally to methods for removing oxide impurities from optical fluoride crystal feedstocks. More specifically, the invention relates to a method for preparing purified optical fluoride crystal feedstocks and the use of the feedstock in manufacturing VUV<200 nm transmission optical fluoride crystals for VUV lithography/laser systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2003:131231 USPAT2
TI Method of making high purity optical fluoride crystals
IN Kerdoncuff, Alain, Vincennes, FRANCE
Mayolet, Alexandre M., Auneau, FRANCE
PA Corning Incorporated, Corning, NY, United States (U.S. corporation)
PI US 6802901 B2 20041012
AI US 2002-198526 20020718 (10)
PRAI FR 2001-9710 20010720
DT Utility
FS GRANTED
EXNAM Primary Examiner: Hiteshew, Felisa
LREP Douglas, Walter M.
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 11 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 521
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HCAPLUS, INSPEC, JAPIO' ENTERED AT 09:00:37 ON 29 DEC 2004)
DELETE HIS

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2' ENTERED AT 09:01:05 ON 29 DEC 2004
L1 70 S (OPTICAL(W)FLUORIDE)(8A)(CRYSTAL#)
L2 1062 S (BRIDGMAN(W)STOCKBARGER)
L3 473 S (F OR FLUORIDE)(4A)(RAW(W)MATERIAL(6A)POWDER# OR MATERIAL(6A)
L4 461562 S (MOLD OR FLEXIBLE(4A)MOLD)

```
L5       3528654 S (PRESSURE OR ISOTATIC(W)PRESSURE)
L6       2144295 S (COMPRESS? OR COMPACT? OR SOLIDIFY?)
L7        138980 S (CAF2 OR CALCIUM(W)FLUORIDE OR BAF2 OR BARIUM(W)FLUORIDE OR M
L8         18441 S (METAL?(4A)FLUORIDE)
L9             0 S L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7
L10      2669365 S (OPTICAL?)
L11        45883 S (F OR FLUORIDE)(8A)(CRYSTAL?)
L12            1 S L2 AND L3 AND L5 AND L6 AND L7 AND L10 AND L11
L13            0 S L1 AND L2 AND L3 AND L4
L14            0 S L2 AND L3 AND L4
L15         1062 S L2 AND L2
L16            4 S L2 AND L3
L17           11 S L2 AND L4

=>
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Search History

STN

(HCAPLUS, INSPEC, JAPIO, USPATALL)

12/29/04

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=> d his

     (FILE 'HCAPLUS, INSPEC, JAPIO' ENTERED AT 09:00:37 ON 29 DEC 2004)
               DELETE HIS

     FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2' ENTERED AT 09:01:05 ON
     29 DEC 2004
L1            70 S (OPTICAL(W)FLUORIDE)(8A)(CRYSTAL#)
L2          1062 S (BRIDGMAN(W)STOCKBARGER)
L3           473 S (F OR FLUORIDE)(4A)(RAW(W)MATERIAL(6A)POWDER# OR MATERIAL(6A)
L4        461562 S (MOLD OR FLEXIBLE(4A)MOLD)
L5       3528654 S (PRESSURE OR ISOTATIC(W)PRESSURE)
L6       2144295 S (COMPRESS? OR COMPACT? OR SOLIDIFY?)
L7        138980 S (CAF2 OR CALCIUM(W)FLUORIDE OR BAF2 OR BARIUM(W)FLUORIDE OR M
L8         18441 S (METAL?(4A)FLUORIDE)
L9             0 S L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7
L10      2669365 S (OPTICAL?)
L11        45883 S (F OR FLUORIDE)(8A)(CRYSTAL?)
L12            1 S L2 AND L3 AND L5 AND L6 AND L7 AND L10 AND L11
L13            0 S L1 AND L2 AND L3 AND L4
L14            0 S L2 AND L3 AND L4
L15         1062 S L2 AND L2
L16            4 S L2 AND L3
L17           11 S L2 AND L4

=> d l17 1-11 abs,bib

L17  ANSWER 1 OF 11  USPATFULL on STN
AB     A single crystal pulling apparatus for a metal fluoride comprising a
       crucible provided in a chamber and filling a molten solution of a single
       crystal manufacturing material, a melting heater provided to surround
       the crucible, a vertically movable single crystal pulling bar including
       a seed crystal on a tip and coming in contact with the molten solution
       of the single crystal manufacturing material filled in the crucible, a
       heat insulating wall provided in the chamber to surround at least a
       peripheral side portion of a single crystal pulling region in an upper
       part of the crucible, a ceiling board for closing an opening portion of
       an upper end in an upper part of the heat insulating wall, and a single
       crystal pulling chamber surrounded by the heat insulating wall and the
       ceiling board, wherein the ceiling board is provided with at least an
       inserting hole for inserting the single crystal pulling bar, and a
       coefficient of thermal conductivity in a direction of a thickness of the
       ceiling board is 1000 to 50000 W/m.sup.2.multidot.K.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN     2004:130683  USPATFULL
TI     Single crystal pulling apparatus for a metal fluoride
IN     Nawata, Teruhiko, Shunan-shi, JAPAN
       Miyazaki, Hidetaka, Shunan-shi, JAPAN
       Yanagi, Hiroyuki, Shunan-shi, JAPAN
       Nitta, Shinichi, Tokyo, JAPAN
       Ito, Harumasa, Tokyo, JAPAN
       Yamaga, Isao, Tokyo, JAPAN
PA     TOKUYAMA CORPORATION (non-U.S. corporation)
PI     US 2004099210      A1   20040527
AI     US 2003-717018     A1   20031119 (10)
PRAI   JP 2002-334528     20021119
DT     Utility
FS     APPLICATION
LREP   Kent E. Baidauf, 700 Koppers Building, 436 Seventh Avenue, Pittsburgh,
       PA, 15219-1818
CLMN   Number of Claims: 7
ECL    Exemplary Claim: 1
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DRWN 4 Drawing Page(s)
LN.CNT 919
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 2 OF 11 USPATFULL on STN
AB Fused, crystalline eutectic material comprising aluminum oxycarbide/nitride-Al.sub.2O.sub.3.rare earth oxide eutectics. Examples of useful articles comprising the fused eutectic material include fibers and abrasive particles.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2003:169002 USPATFULL
TI Fused aluminum oxycarbide/nitride-Al2O3.multidot.rare earth oxide eutectic materials
IN Rosenflanz, Anatoly Z., Maplewood, MN, United States
PA 3M Innovative Properties Company, St. Paul, MN, United States (U.S. corporation)
PI US 6583080 B1 20030624
AI US 2000-619106 20000719 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marcheschi, Michael
LREP Allen, Gregory D.
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 9 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 1454
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 3 OF 11 USPATFULL on STN
AB Fused, crystalline eutectic material comprising Al.sub.2O.sub.3-rare earth oxide-ZrO.sub.2 eutectic. Examples of useful articles comprising the fused eutectic material include fibers and abrasive particles.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2003:168707 USPATFULL
TI Fused Al2O3-rare earth oxide-ZrO2 eutectic materials
IN Rosenflanz, Anatoly Z., Maplewood, MN, United States
PA 3M Innovative Properties Company, St. Paul, MN, United States (U.S. corporation)
PI US 6582488 B1 20030624
AI US 2000-619192 20000719 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marcheschi, Michael
LREP Allen, Gregory D.
CLMN Number of Claims: 32
ECL Exemplary Claim: 1
DRWN 27 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2146
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 4 OF 11 USPATFULL on STN
AB Fused, crystalline eutectic material comprising aluminum oxycarbide/nitride-Al.sub.2O.sub.3.Y.sub.2O.sub.3 eutectics. Examples of useful articles comprising the fused eutectic material include fibers and abrasive particles.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2002:254313 USPATFULL
TI Fused aluminum oxycarbide/nitride-AL2O3.Y2O3 eutectic materials
IN Rosenflanz, Anatoly Z., Maplewood, MN, United States
PA 3M Innovative Properties Company, St. Paul, MN, United States (U.S.

corporation)
PI US 6458731 B1 20021001
AI US 2000-619215 20000719 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marcheschi, Michael
LREP Allen, Gregory D.
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 8 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1421
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 5 OF 11 USPATFULL on STN
AB A multi-shelled melt container is disclosed for liquefying and crystallizing substances which comprises at least an inner shell and a bearing shell. While the inner shell--which has a thin wall in comparison to the wall of the bearing shell--consists of an inert material with respect to the melt, the bearing shell serves exclusively to fixate and support the inner shell and is correspondingly constructed in a mechanically stable fashion. The device can also comprise means to pump the melt over into a collection vessel.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2000:137599 USPATFULL
TI Device and method for liquefying and crystallizing substances
IN Berthold, Thomas, Munich, Germany, Federal Republic of
Boedinger, Hermann, Munich, Germany, Federal Republic of
PA Siemens Aktiengesellschaft, Munich, Germany, Federal Republic of
(non-U.S. corporation)
PI US 6132508 20001017
AI US 1999-412065 19991004 (9)
RLI Division of Ser. No. US 1998-132545, filed on 11 Aug 1998, now patented, Pat. No. US 5997640
DT Utility
FS Granted
EXNAM Primary Examiner: Garrett, Felisa
LREP Hill & Simpson
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 6 OF 11 USPATFULL on STN
AB A multi-shelled melt container is disclosed for liquefying and crystallizing substances which comprises at least an inner shell and a bearing shell. While the inner shell--which has a thin wall in comparison to the wall of the bearing shell--consists of an inert material with respect to the melt, the bearing shell serves exclusively to fixate and support the inner shell and is correspondingly constructed in a mechanically stable fashion. The device can also comprise means to pump the melt over into a collection vessel.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 1999:159258 USPATFULL
TI Device and method for liquefying and crystallizing substances
IN Berthold, Thomas, Munich, Germany, Federal Republic of
Boedinger, Hermann, Munich, Germany, Federal Republic of
PA Siemens Aktiengesellschaft, Munich, Germany, Federal Republic of
(non-U.S. corporation)
PI US 5997640 19991207
AI US 1998-132545 19980811 (9)

DT Utility
FS Granted
EXNAM Primary Examiner: Hiteshew, Felisa
LREP Hill & Simpson
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 597
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 7 OF 11 USPATFULL on STN
AB A sintered rhenium crucible, highly suitable for growing single crystals from refractory metal oxides, for example by the Czochralski technique, is formed of fine rhenium powder, by sintering. A compact is formed by cold isostatic pressing and thereafter the compact is sintered at 500-2800° C. to obtain a sintered crucible. Product density is limited to 88-95% of theroretical in order to maximize creep resistance.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 1999:154929 USPATFULL
TI Crucible for growing single crystals, process for making the same and use of the same
IN Lupton, David Francis, Gelnhausen, Germany, Federal Republic of
Schielke, Jorg, Bruchkobel, Germany, Federal Republic of
Weigelt, Manfred, Linsengericht, Germany, Federal Republic of
Petermann, Klaus, Wedel, Germany, Federal Republic of
Mix, Eric, Hamburg, Germany, Federal Republic of
Fornasiero, Livio, Norderstedt, Germany, Federal Republic of
PA W.C. Heraeus GmbH & Co. KG, Hanau, Germany, Federal Republic of (non-U.S. corporation)
PI US 5993545 19991130
AI US 1998-5327 19980109 (9)
PRAI DE 1997-19702465 19970124
DT Utility
FS Granted
EXNAM Primary Examiner: Utech, Benjamin; Assistant Examiner: Champagne, Donald L.
LREP Frishauf, Holtz, Goodman, Langer & Chick, P.C.
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 342
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 8 OF 11 USPATFULL on STN
AB This invention aims at casting a large silicon crystal grain-containing ingot (14) by melting a silicon material (20) by scanning the same with an electron beam, and gradually cooling molten silicon (5) thus obtained. A method of casting a crystalline silicon ingot by electron beam melting, involves of the steps of melting a silicon material (20) by scanning the same with an electron beam, cooling the outer lower surface of molten silicon (5) thus produced while increasing the temperature of the molten silicon (5) suitably so as to generate crystals thereof, and gradually precipitating a crystalline silicon ingot (14) by the weight of itself in accordance with the generation of the crystals. An apparatus is provided for casting crystalline silicon ingot by electron beam melting, in which silicon material supply means (2, 3) are provided at one side of a cold hearth (1), one side portion of a crucible (8, 8a) being joined to the upper portion of the other side of the cold hearth (1) via a groove (7), electron guns (16 a, 16), a cooling means (10, 10a) being attached to the wall of the crucible (8, 8a), retaining means (15, 15a) for crystalline silicon ingot (14) being provided at the lower side of the crucible (8, 8a) so that the retaining

means for the crystalline silicon ingot (14) can be vertically moved or both vertically and rotationally moved. The crystalline silicon ingot is lifted up at some point at a very slow speed so as to remove some part of the molten silicon which has a high concentration of impurities.

AN 95:87646 USPATFULL
TI Method of and apparatus for casting crystalline silicon ingot by electron bean melting
IN Mori, Nobuyuki, 4-45-4, Kamitakada, Nakano-ku, Tokyo, Japan
Maeda, Masafumi, Niiza, Japan
PA Mori, Nobuyuki, Tokyo, Japan (non-U.S. individual)
PI US 5454424 19951003
WO 9312272 19930624
AI US 1993-107704 19930818 (8)
WO 1992-JP1646 19921217
19930818 PCT 371 date
19930818 PCT 102(e) date
PRAI JP 1991-353585 19911218
DT Utility
FS Granted
EXNAM Primary Examiner: Rosenbaum, Mark; Assistant Examiner: Miner, James
LREP Wenderoth, Lind & Ponack
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 12 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 633

L17 ANSWER 9 OF 11 USPATFULL on STN
AB Growth of monocrystalline rods from a bulk melt is carried out by a modified Czochralski process using a float which floats on the bulk melt held in a crucible. Melt flows through a passageway in the float to a crystal growth zone at a rate which prevents diffusion of dopant from the growth zone to the bulk melt. The shape of the crystal may be determined by a shaper wall in the float which defines the growth zone, in which case the crystal body is pulled from the float as it grows without rotating the crystal. The temperature of the float near the shaper wall may be monitored and controlled to control the crystallization process.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 94:105785 USPATFULL
TI Method and apparatus for crystal growth with shape and segregation control
IN Kou, Sindo, Madison, WI, United States
Lin, Ming-Hsien, Madison, WI, United States
PA Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)
PI US 5370078 19941206
AI US 1992-983776 19921201 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Breneman, R. Bruce; Assistant Examiner: Garrett, Felisa
LREP Foley & Lardner
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 23 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 1178
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 10 OF 11 USPATFULL on STN
AB High-quality castings are formed by:

(a) placing a molten material in contact with a first electrode formed from a conductive material and a second electrode formed from a semiconductive metal oxide, and

(b) passing an electric current between the first second electrodes while the molten material is cooling at a current density of from 10 to 500 mA/cm.sup.2.

AN 93:86487 USPATFULL
TI Method and apparatus for controlling solidification of metals and other materials
IN Misra, Asoka K., 159 E. 30 St. Apt. #14A, New York, NY, United States 10016
PI US 5253696 19931019
AI US 1992-900561 19920618 (7)
RLI Continuation-in-part of Ser. No. US 1992-865109, filed on 8 Apr 1992, now abandoned And a continuation-in-part of Ser. No. US 1992-876760, filed on 1 May 1992
DT Utility
FS Granted
EXNAM Primary Examiner: Lin, Kuang Y.
LREP Brumbaugh, Graves, Donohue & Raymond
CLMN Number of Claims: 19
ECL Exemplary Claim: 1,10
DRWN 7 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 390

L17 ANSWER 11 OF 11 USPATFULL on STN
AB An inventive method is described for chemically machining rhenium, rhenium and tungsten alloy, and group 5b and 6b crucibles or molds from included ingots and castings comprised of oxide crystals including YAG and YAG based crystals, garnets, corundum crystals, and ceramic oxides. A mixture of potassium hydroxide and 15 to 90 weight percent of potassium nitrate is prepared and maintained at a temperature above melting and below the lower of 500 degrees centigrade or the temperature of decomposition of the mixture. The enveloping metal container together with its included oxide crystal object is rotated within the heated KOH-KNO.sub.3 mixture, until the container is safely chemically machined away from the included oxide crystal object.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 91:60513 USPATFULL
TI Nondestructive method for chemically machining crucibles or molds from their enclosed ingots and castings
IN Stout, Norman D., Livermore, CA, United States
Newkirk, Herbert W., Livermore, CA, United States
PA The United States of America as represented by the United States Department of Energy, Washington, DC, United States (U.S. government)
PI US 5035769 19910730
AI US 1989-417146 19891004 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Lacey, David L.; Assistant Examiner: Johnson, Lori
LREP Carnahan, L. E., Sartorio, Henry P., Moser, William R.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 257
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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Search History

STN
(HCAPLUS, USPATFULL, INSPEC, JAPIO)
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               DELETE HIS

     FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2' ENTERED AT 09:01:05 ON
     29 DEC 2004
L1            70 S (OPTICAL(W)FLUORIDE)(8A)(CRYSTAL#)
L2          1062 S (BRIDGMAN(W)STOCKBARGER)
L3           473 S (F OR FLUORIDE)(4A)(RAW(W)MATERIAL(6A)POWDER# OR MATERIAL(6A)
L4        461562 S (MOLD OR FLEXIBLE(4A)MOLD)
L5       3528654 S (PRESSURE OR ISOTATIC(W)PRESSURE)
L6       2144295 S (COMPRESS? OR COMPACT? OR SOLIDIFY?)
L7        138980 S (CAF2 OR CALCIUM(W)FLUORIDE OR BAF2 OR BARIUM(W)FLUORIDE OR M
L8         18441 S (METAL?(4A)FLUORIDE)
L9             0 S L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7
L10      2669365 S (OPTICAL?)
L11        45883 S (F OR FLUORIDE)(8A)(CRYSTAL?)

=> s l2 and l3 and l5 and l6 and l7 and l10 and l11
L12           1 L2 AND L3 AND L5 AND L6 AND L7 AND L10 AND L11

=> d l12 abs,bib

L12  ANSWER 1 OF 1  USPATFULL on STN
AB     A method for making a below 200-nm wavelength optical
       fluoride crystal feedstock includes loading a
       fluoride raw material into a chamber, exposing the fluoride raw
       material to a flow of gaseous fluoride at a predetermined temperature,
       and storing the exposed fluoride raw material in a dry atmosphere.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN     2003:103713  USPATFULL
TI     Preparation of feedstock of alkaline earth and alkali metal fluorides
IN     LeBlond, Nicolas, Conring, NY, UNITED STATES
       Mayolet, Alexandre M., Auneau, FRANCE
       Pell, Michael A., UNITED STATES
       Whalen, Joseph M., Corning, NY, UNITED STATES
PI     US 2003070606      A1   20030417
AI     US 2002-263048     A1   20021001 (10)
PRAI   US 2001-327654P    20011005 (60)
DT     Utility
FS     APPLICATION
LREP   CORNING INCORPORATED, SP-TI-3-1, CORNING, NY, 14831
CLMN   Number of Claims: 59
ECL    Exemplary Claim: 1
DRWN   5 Drawing Page(s)
LN.CNT 673
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


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